



Cal/EPA

California
Environmental
Protection
Agency



Air Resources Board

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Pete Wilson
Governor

James M. Strock
Secretary for
Environmental
Protection

May 29, 1996

Mr. John Rumble
Vice President, Sales and Marketing
Catlow Inc.
2750 U.S. Route 40
Tipp City, Ohio 45371

Approval of Blackmer Model VRFO Vapor Pump

#96-11

Dear Mr. Rumble:

You requested the approval of the Blackmer Model VRFO vapor pump as an equivalent replacement to the Blackmer Model VR-3/4 vapor pump. The Blackmer Model VR-3/4 is certified for use in the Amoco Oil Company V-1 Bootless Nozzle Vapor Recovery System as stated in CARB Executive Order G-70-118-AB. The Blackmer Model VRFO is certified for use in the OPW VaporEZ Phase II Recovery System as stated in CARB Executive Order G-70-163.

The VRFO vapor pump is a non-electric, liquid pressure driven, positive displacement vane pump and is a smaller, light weight version of the VR-3/4 vapor pump. The lighter weight and the five different manifold options with the VRFO allow for greater flexibility when installing and plumbing the vapor pump. Comparative bench testing of the Model VR-3/4 and the VRFO pumps indicated equivalent vapor recovery potentials (measured in inches of water column) of the two pumps at various equivalent liquid flow rates (measured in GPM).

I find that the use of the Blackmer Model VRFO pump when installed in accordance with the manufacturer's instructions and the conditions listed in the original VR-3/4 pump approvals, will not adversely affect the performance of the Amoco Oil Company V-1 Bootless Nozzle Vapor Recovery System as stated in Executive Order G-70-118-AB. Therefore the Blackmer Model VRFO vapor pump is approved as a equivalent replacement for the Blackmer Model VR 3/4 vapor pump.

If you have any questions or wish to discuss this, please call Paul Thalken at (916) 445-0383 or Laura McKinney at (916) 327-1525.

Sincerely,

James J. Morgester, Chief
Compliance Division

cc: Mr. Jim Johnston, Chairman
CAPCOA Vapor Recovery Committee

Mr. Gary Hunter, Manager
CARB Compliance Assistance Section